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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/468,015	12/20/1999	DIETMAR EGGERT	F71989US	3122

7590

07/02/2002

GEORGE J. OEHLING
WILLIAMS, MORGAN & AMERSON, PC
7676 HILLMONT
SUITE 250
HOUSTON, TX 77040

EXAMINER

HUYNH, KIM NGOC

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 07/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/468,015

Applicant(s)

EGGERT ET AL.

Examiner

Kim Huynh

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by JP-67486 . JP-67486 describes an ESD circuit having an inductor L connected to a plurality of ESD clamp devices, note parasitic capacitance is an inherent feature of all semiconductor devices and as shown by capacitor C.
3. Claims 1-3 are rejected under 35 U.S.C. 102(a) as being anticipated by Ker (US 5,901,022). Similarly, Ker describes an ESD circuit having an inductor connected to a plurality of ESD clamp devices. Note also Ker discloses (Fig. 11-12) that the inductor is formed on a substrate/die (bond metal pad).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-67486 in view of Ker (US 5,901,022). JP-67486 discloses all the features of claim 1 except the inductor being fabricated on a substrate or an IC die. Ker shows (Fig 11 and 12) an inductor being formed on a substrate/die (bond metal pad) to avoid increasing total layout area of the protection circuit (col. 7, ll. 45-48). It would have been obvious to one having ordinary skill in the art to utilize the teaching of Ker to form the inductor on the bond pad in order to save space on the integrated circuit.

6. Claims 4-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ker in view of Lee (US 5,831,331). Ker disclose a method and an ESD protection circuit connected to an inductor formed on a substrate of the IC except the physical structure of the multi-coil inductor on the plurality of insulating layer. Lee discloses an integrated circuit inductor having multi coil inductor as claimed. It would also have been obvious to one having ordinary skill in the art to utilize the inductive structure as taught by Lee in order to save space on the integrated circuit (Ker, col. 7, ll. 45-48) and for ease of manufacturing (Lee, col. 1, ll. 34-36).

As for the shape of the coil and the type of metal, these are unremarkable and conventional modifications which are well within the ability of one having the ordinary skill in the art as matter of choice to utilize any type of metal or shape of the inductor loop to form the integrated inductor as long as it provide an inductor structure which can be used in the circuit of Ker to operate with the ESD clamp to provide ESD protection of the circuit in absence of persuasive evidence that a particular shape or type of metal is significant. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)

Response to Arguments

7. Applicant's arguments filed 5/10/02 have been fully considered but they are not persuasive.

8. Applicant argues that JP-67486 and Ker do not teach the use of more than one ESD clamp devices. Please note Figs. 3-5 of JP-67486 shows at least two ESD devices connected to the coil L and Ker show a first and second ESD devices 400-500 connected to the coil L.

Conclusion

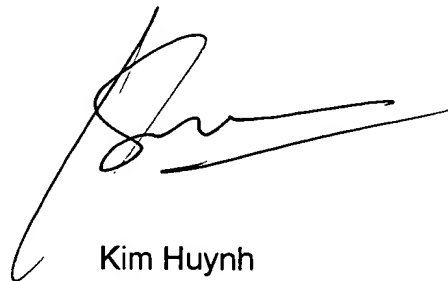
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (703) 308-1678.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0658.

A handwritten signature in black ink, appearing to be 'Kim Huynh', with a long horizontal stroke extending to the right.

Kim Huynh
Primary Examiner
Art Unit 2836

KH
June 26, 2002